



Transformations to bike-friendly cities

Wolter te Riele, Berenschot

Dutch Cycling Embassy



*Public Private Partnership for Dutch expertise
in bicycle-inclusive sustainable mobility*

Integral team of experts



About me

Wolter te Riele

Berenschot

- Consultant and manager at Berenschot consultancy
- Expert mobility, water sector, economic policy

Some projects:

- *Sustainable Mobility Plan, Rotterdam, The Netherlands*
- *Training bicycle mobility, Sao Paulo, Brazil*
- *Reform Water Supply & Waste water sector, Croatia*
- *Regional investment fund for the ports of Metropolitan Amsterdam, The Netherlands*

Why ‘Dutch cycling’?

- 1) What is the current state in The Netherlands?
- 2) How did we get there?
- 3) Policy in the Netherlands
- 4) Important measures, effects and aspects
to stimulate bicycle use in Germany

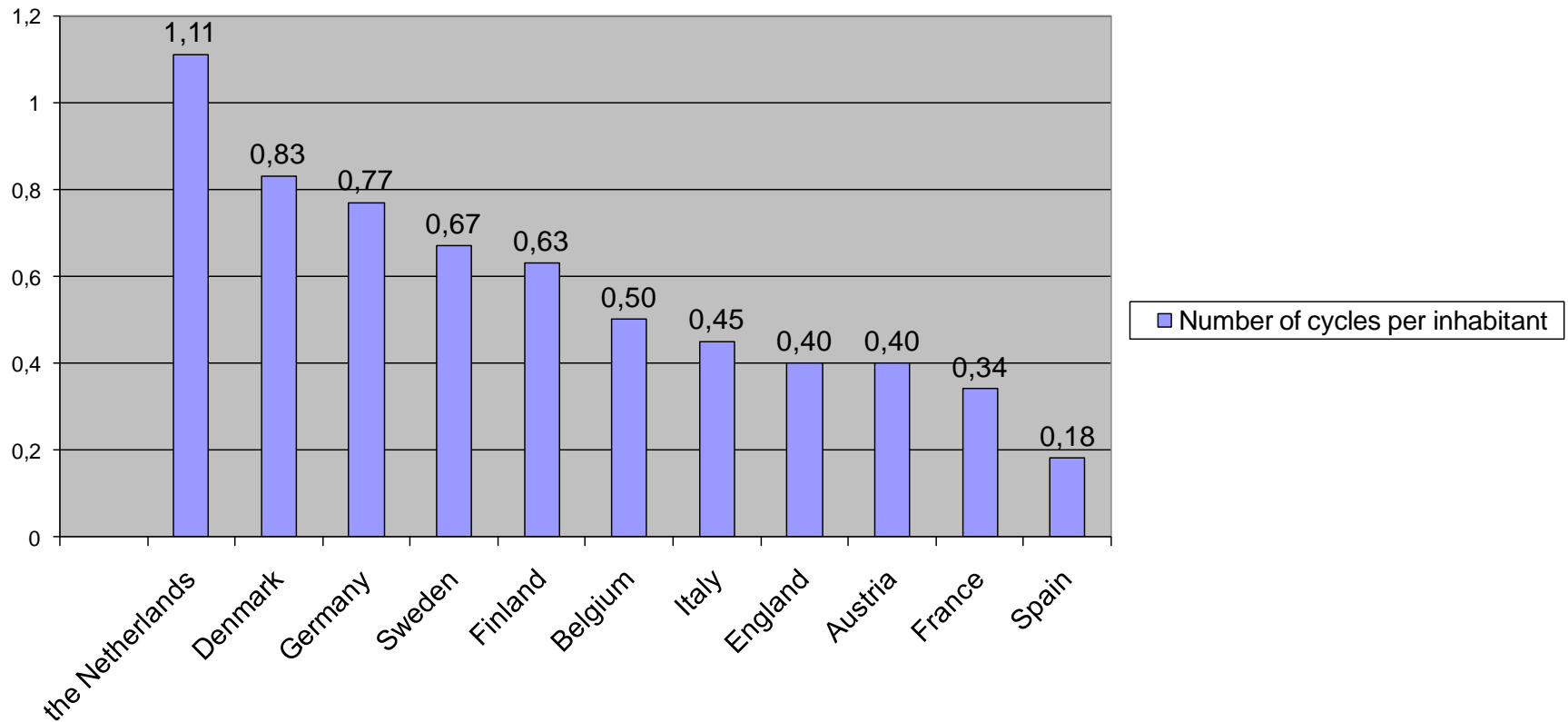
What is the current state in The Netherlands?



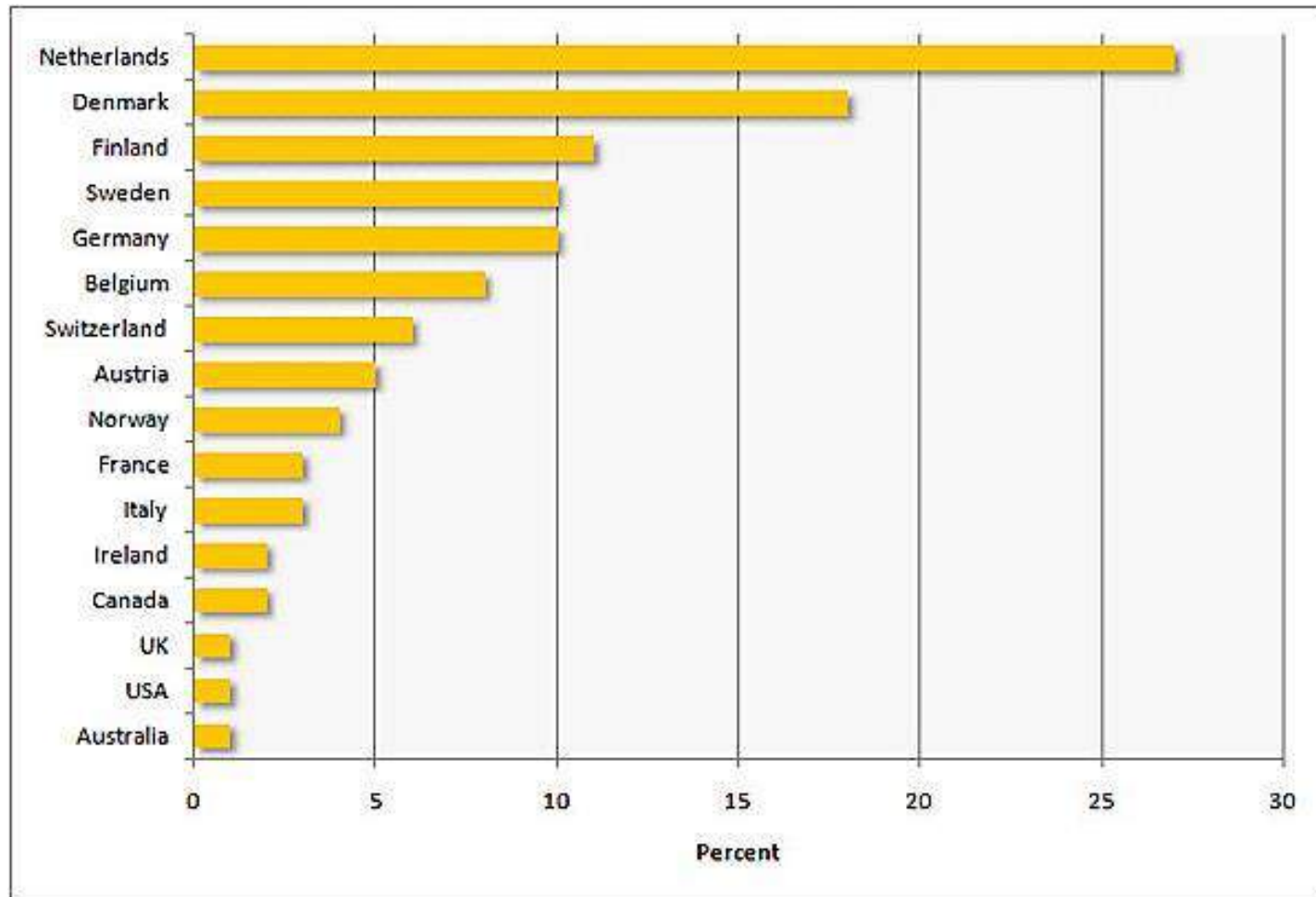
The facts in The Netherlands

- Number of inhabitants: 16,5 million
- Number of bikes: 18 million
- Average number of trips per Nederländer p/y: 300
- Average total distance per Nederländer p/y : 900 km
- Total number of bicycle trips per year: 4,5 billion
- Total kilometers travelled by bike per year: 15 billion
- 27% of all trips (car, PT, bicycle) is done by bicycle
- 35% of all trips of less than 7,5 km is by bicycle
- 50% if distance 1-5 km
- 40% train commuters comes by bike
- 35.000 km of bicycle paths (2009)
- 65.000 km of mixed-use ways
- 4.500 km national bike routes

Number of bikes per inhabitant



Modal split: bicycle share of traffic

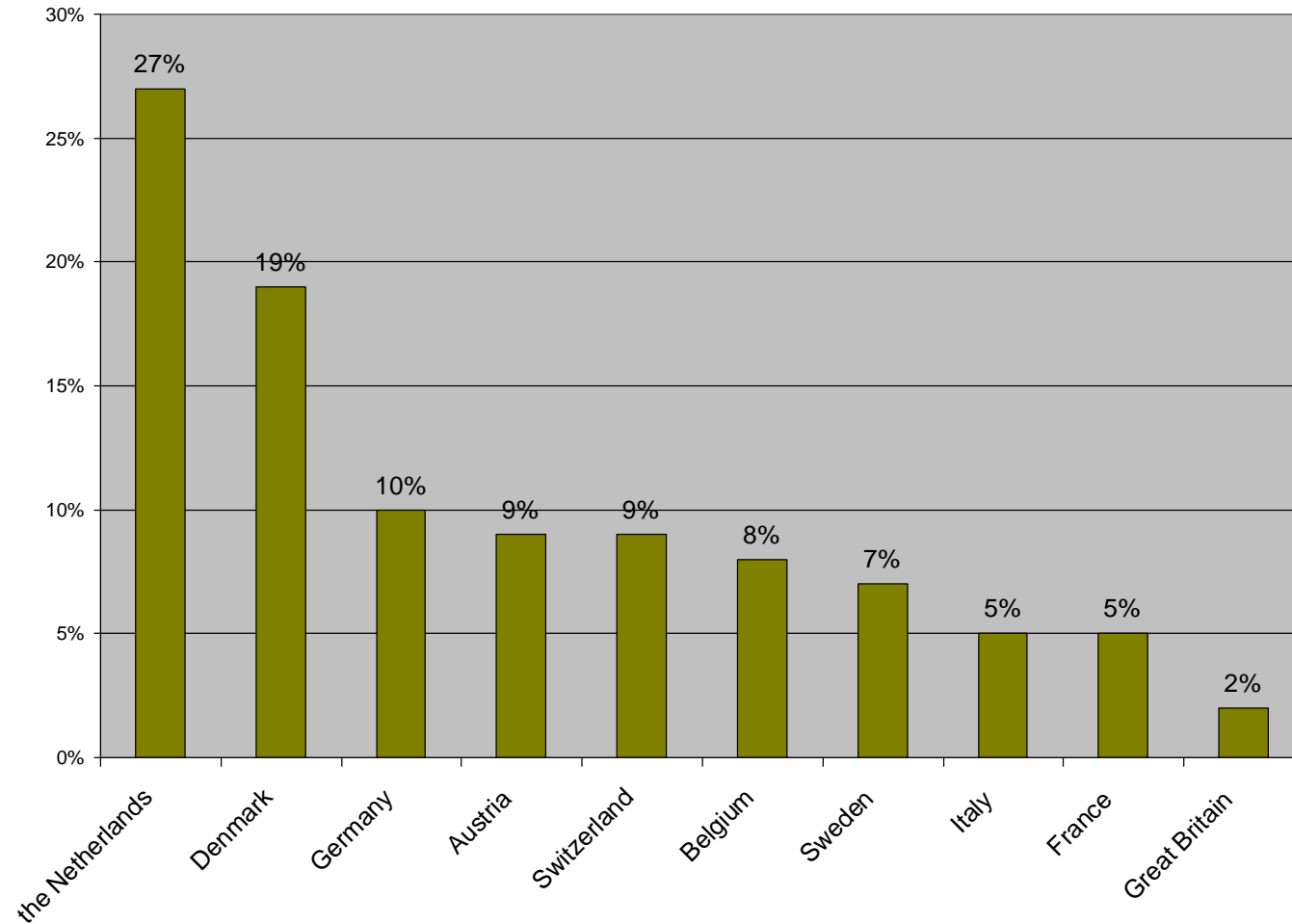


Modal split of cycling mobility



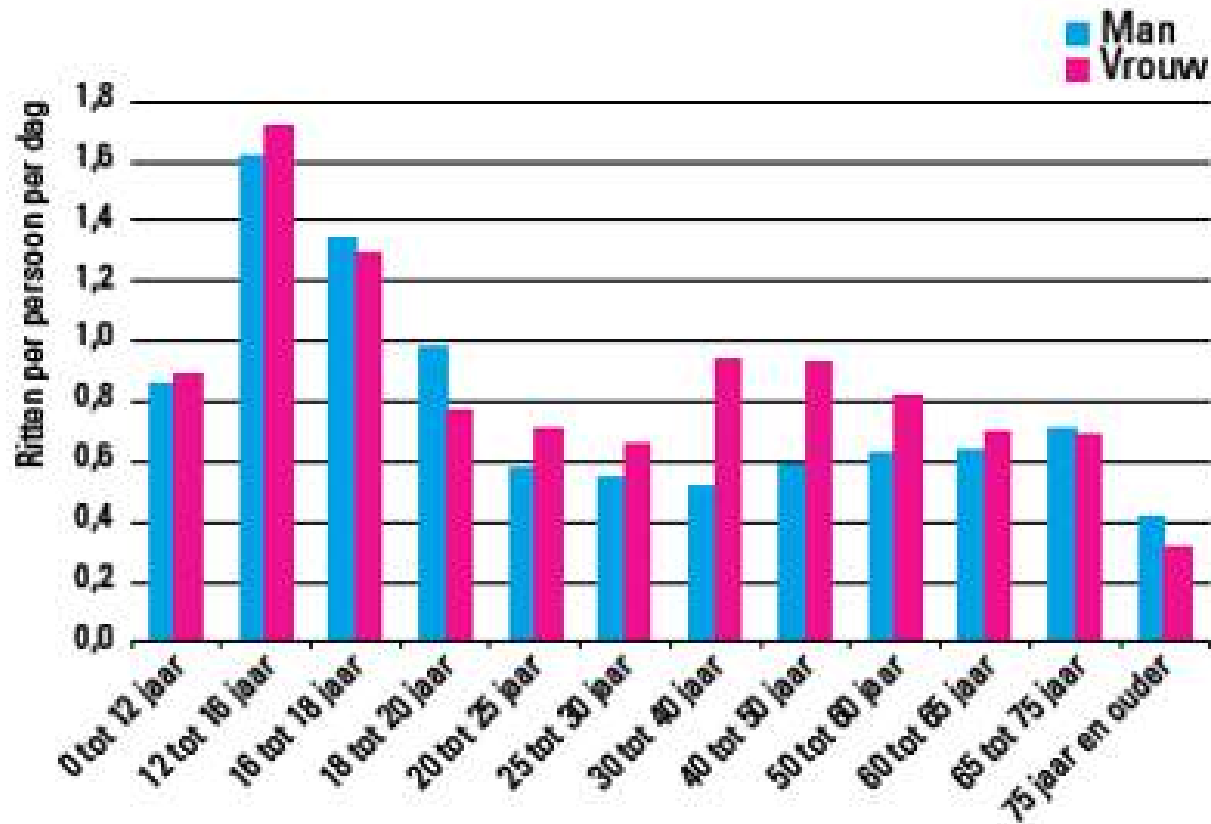
International cities with high levels of cycling provide inspiration for what mode share levels are possible.

Dutch context: bicycle share



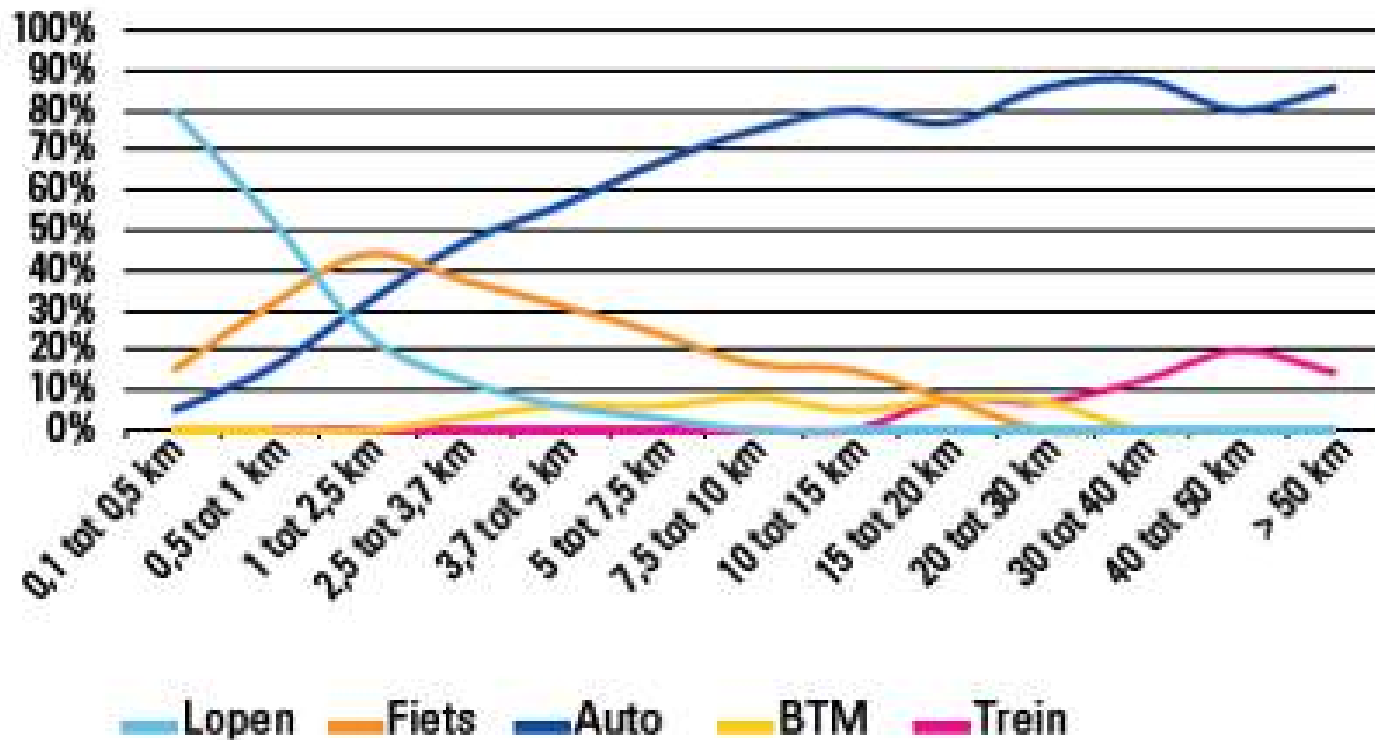
The facts in The Netherlands

Number of bike trips per day by age & gender



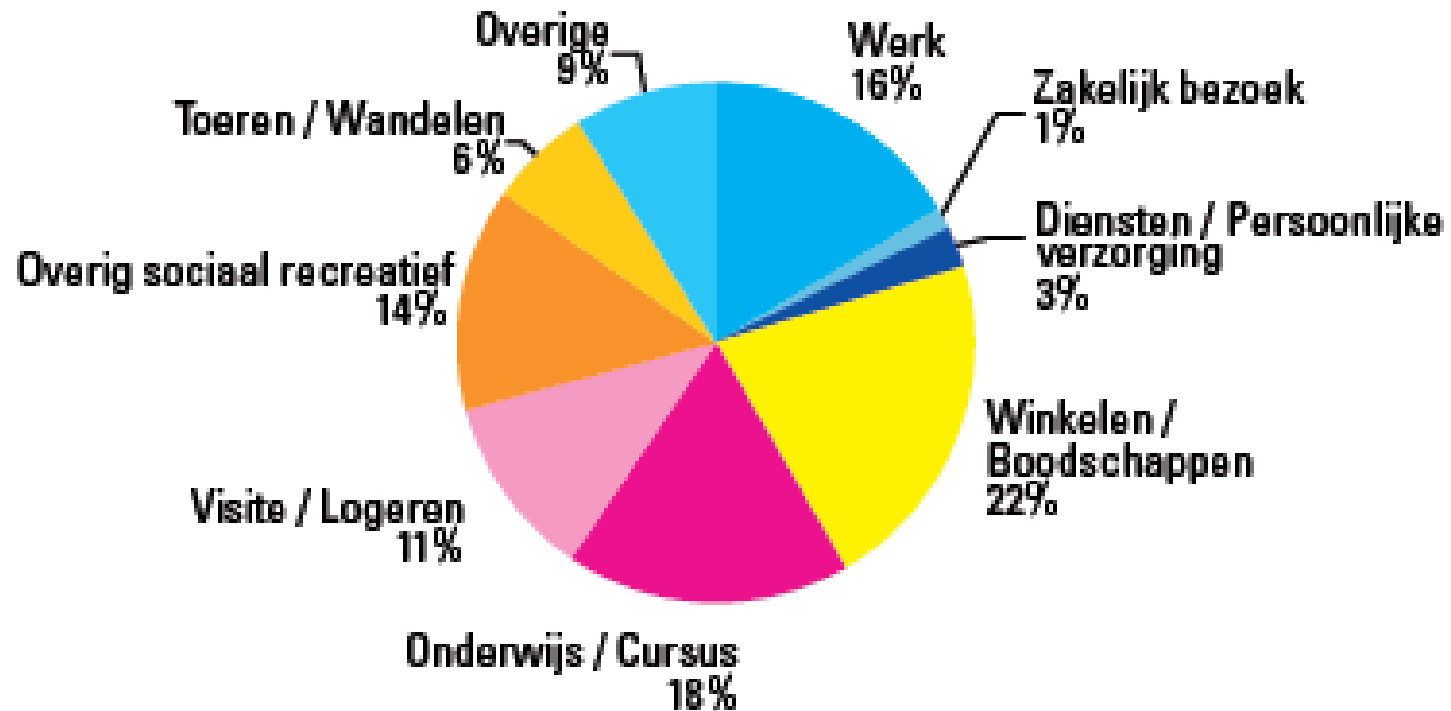
The facts in The Netherlands

Bicycle competes with car, bus/tram/metro (BTM) in most trips



The facts in The Netherlands

We use bicycling for day-to-day activities: going to work, going to school, shopping



The facts in The Netherlands

Car parking tariffs in:

- the center of Amsterdam: 5 euro per hour, 7 days per week from 09.00 to 24.00 hours
- the center of Utrecht: 4,48 euro per hour, 7 days per week from 07.00-01.00 hours



The facts in The Netherlands

Why the bicycle is an alternative for the car: because we use the car mostly for short trips

Share of displacements of <7.5 km for:

Bike	70%
Car driver	51%
Car passenger	54%
Walking	100%
BTM	42%
Train	2%
Other	60%
Total	70% (70% of all trips is less than 7.5 km)

How did we get there?

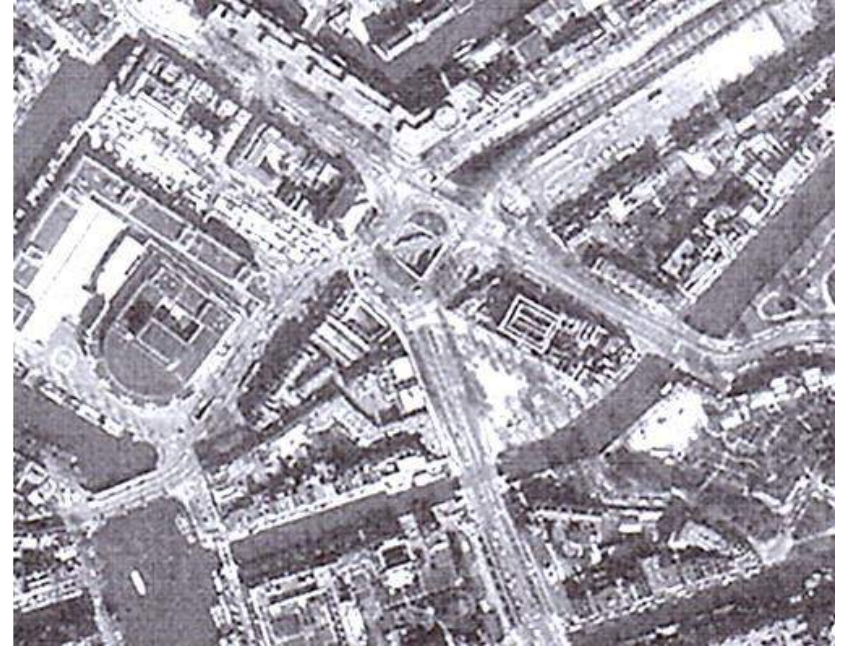


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Consequences 1960s - 1980s

Increase in cars

Congestion

Rising unsafety

More highway construction, enlargement of highways

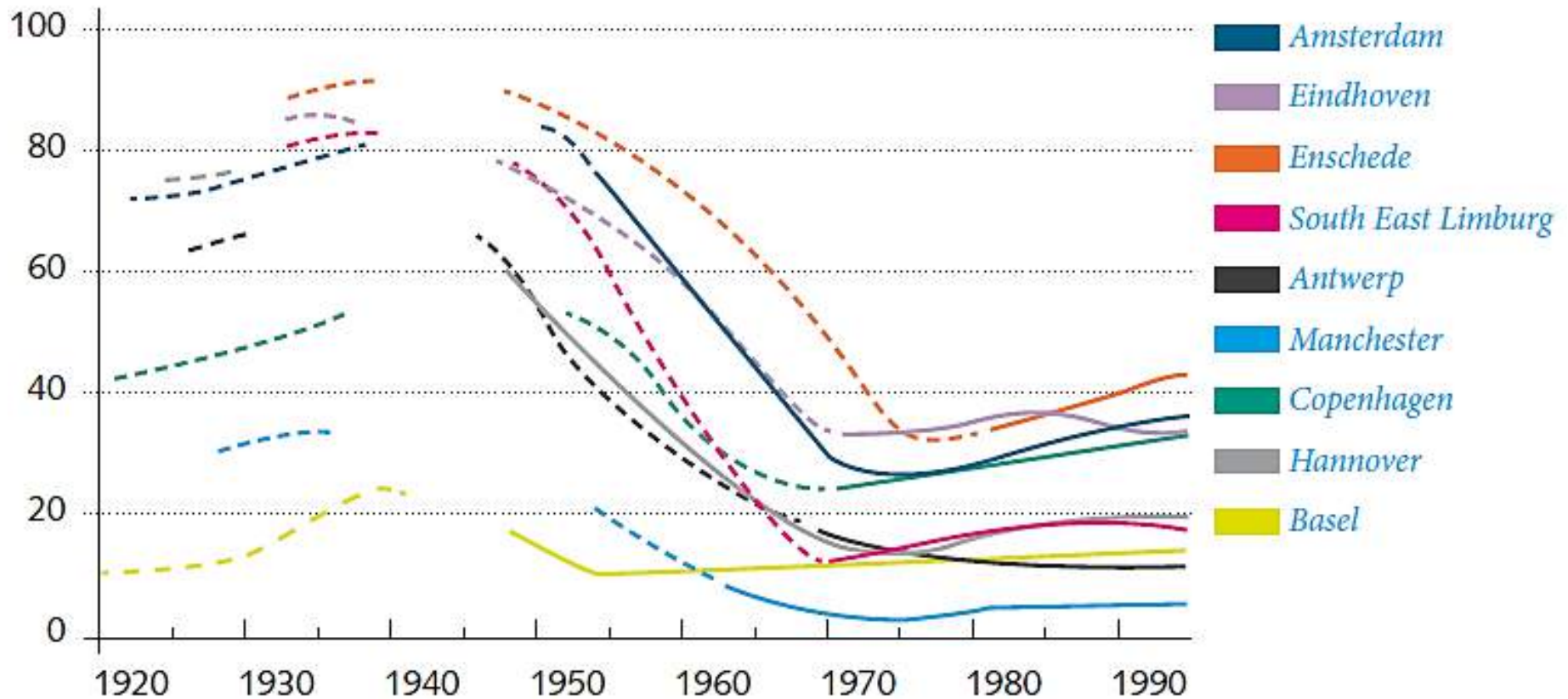
Lack of parking space

Decline of cycling

Rise in casualties:
3300 traffic deaths
in 1971
of which 400 children
under the age of 14



Consequences - in a European perspective



Turning the tide



Turning the tide



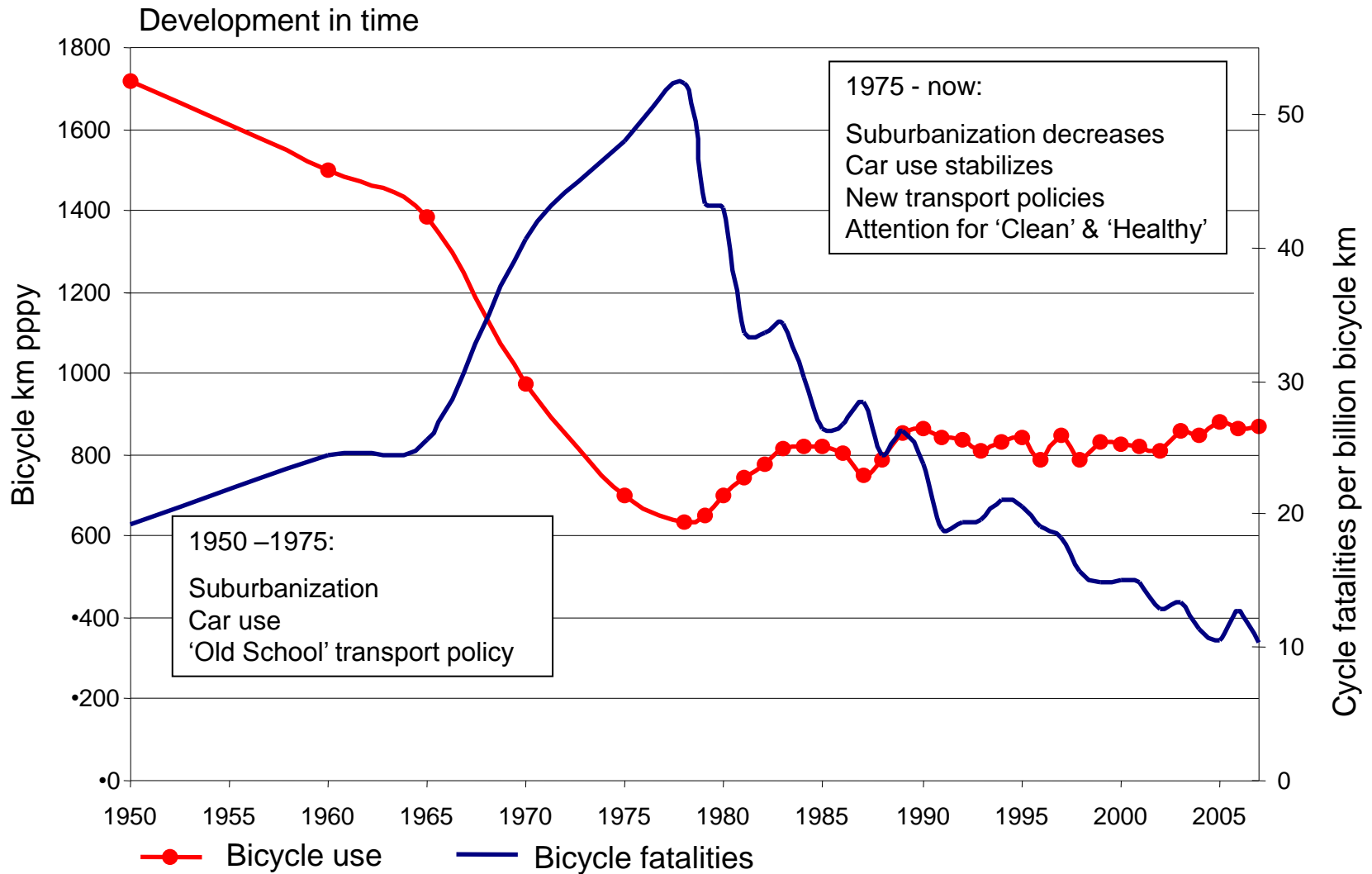
Turning the tide







Dutch context: safety and bicycle use



Policy in The Netherlands

Policy measures

De doelstellingen van het Masterplan Fiets worden in deze notitie uitgewerkt in maatregelen die zijn gericht op vijf speerpunten:

- * Mobiliteit: overstap van auto naar fiets;
- * Vervoerketen: overstap van auto naar openbaar vervoer + fiets;
- * veiligheid voor fietsers;
- * diefstal en stallingen;
- * promotie.

- First municipal cycling policies and cycle infrastructure guidelines, created by municipalities and Fietsersbond
 - National transport strategy 1989
 - Bicycle Master Plan 1990
 - Cycling-inclusive planning
 - Integral part of local and regional transport planning
- Re-confirmed in National Transport Strategy 2006 & 2012

Policy structure

Structuurvisie infrastructuur & ruimte (national)

Provincial traffic and transport plan

Regional traffic and transport plan

Municipal traffic and transport plans

Important aspects

In case of traffic accidents,
the weakest (pedestrians, cyclists)
are protected juridically:
cars have the burden of proof.

Traffic lights give **priority to public transport**
and (often) to bicycles

2009 Mobility Memorandum:

‘All authorities will stimulate **walking and the use of the bicycle as the main means of transportation** and as a link in the travel ‘chain’ from door to door.’

‘Municipalities, water boards, provinces and city areas will do this, by ensuring a bicycle network which complies with the main traffic requirements: **cohesion, directness, attractiveness, safety and comfort.**’



Policy measures



Utrecht
Bicycle paths networks meet, between urban and rural areas

Utrecht
Two-way cycle track dedicated to the busiest traffic corridor: 25.000 cyclists per 24 hours



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National support and funding

Car parking tariffs in:

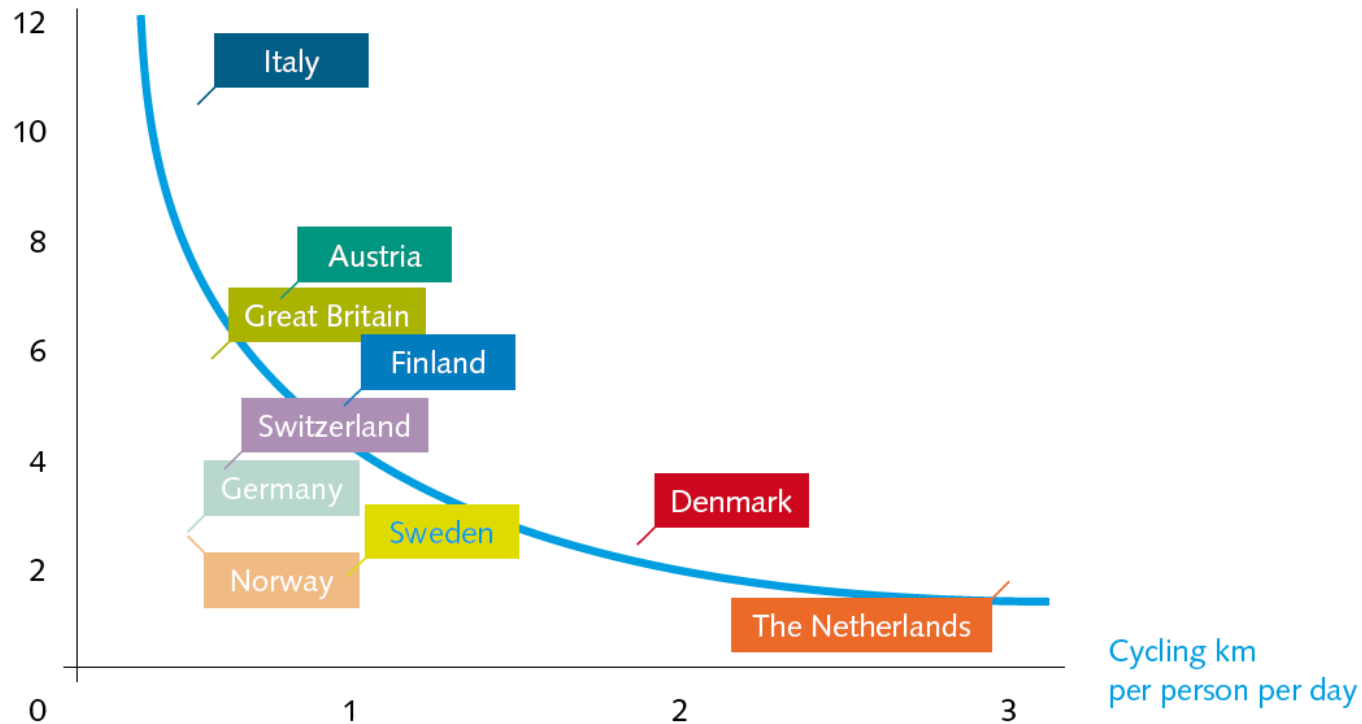
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**Important measures, effects and aspects
-
to stimulate bicycle use in Germany**

Mobility benefits - safety

Killed cyclists
per 100 million km



Relation between accidents and bicycle usage

Make bicycle use attractive: parking facilities



Easy access at schools and offices

Lanes for bikes and cars with priority for cyclists



Cars respect the bikes: on certain routes, the motorist is 'guest' of the cyclist



Connecting cities and suburban villages



Twente region
Bicycle Highway connecting cities Almelo, Hengelo
and Enschede

Utrecht
Large tracks connect towns and satellite villages

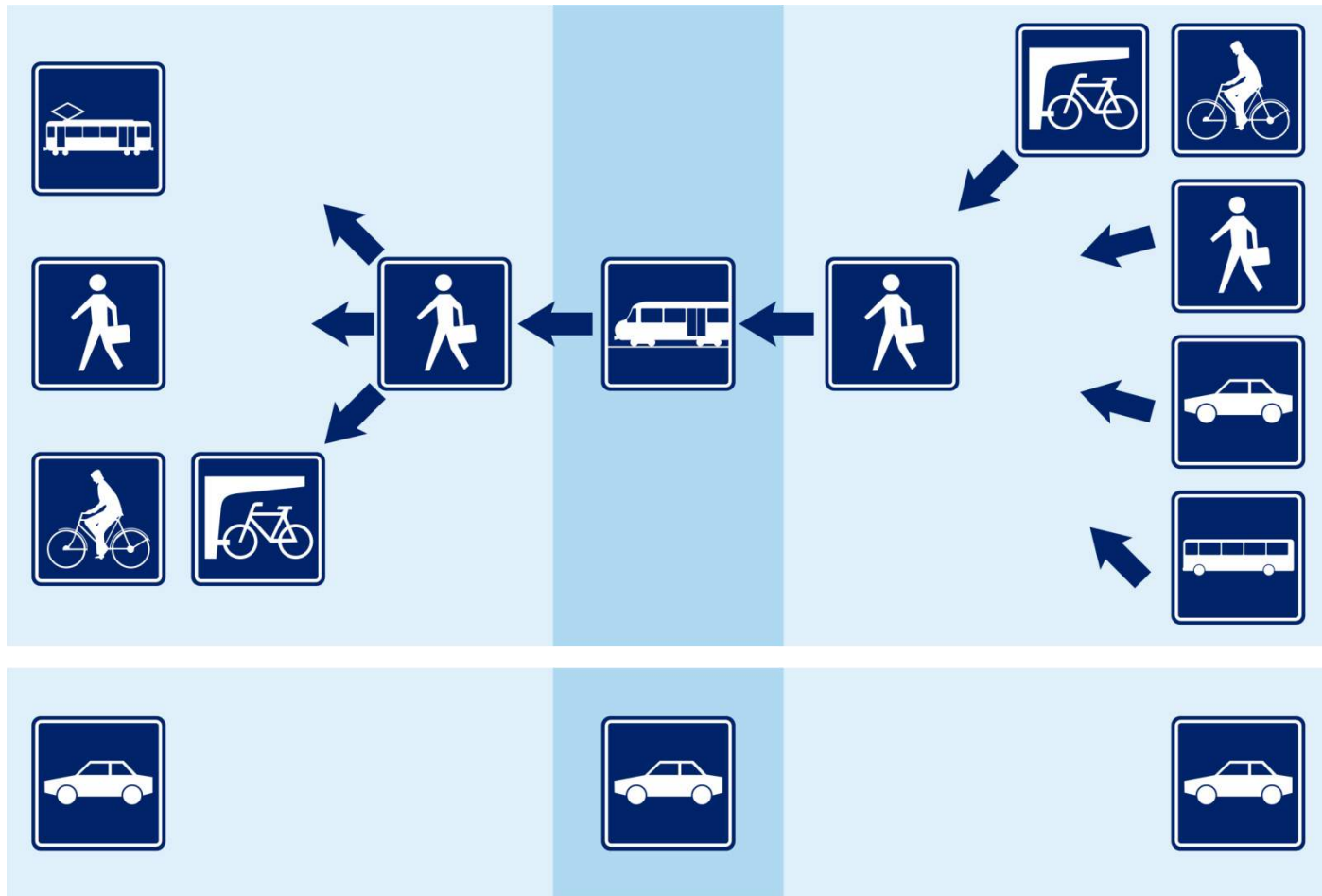


Distances are too far for biking?

Most commuting trips within cities are

- a) < 1 km
- b) < 5 kms
- c) < 10 kms
- d) > 10 kms

Intermodal transport: chain integration



What is needed for train integration: quality door-to-door service



What is needed for train integration: public bicycle system

- Situated *at train stations*
- Exploited by national railways





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Berenschot
